

Notice of Allowability

Application No.

09/700,171

Examiner

Rip A. Lee

Applicant(s)

IGUCHI ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to November 25, 2003.
2. ☒ The allowed claim(s) is/are 1-6 and 8.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

This office action follows a response filed on November 25, 2003. Applicants have amended claims 1 and 4 to correct matters of form. Claim 7 was canceled.

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance: Claims 1-6 and 8 are allowed over the closest references, U.S. Patent No. 3,996,173 to Heichle *et al.*, and U.S. Patent No. 4,670,509 to Aoyama *et al.*

The present invention is drawn to a vinyl chloride resin composition comprising: (a) 100 pw of vinyl chloride resin, (b) 1-10 pw of a graft copolymer, and (c) 10-30 pw of CaCO₃. The graft copolymer is prepared by polymerizing 25-75 pw of a graft monomer component onto 25-75 pw of a crosslinked elastomeric polymer, and the overall graft copolymer has a MEK soluble fraction which exhibits reduced viscosity of η_{sp}/c of 1-5 (measured at 30 °C with respect to 0.2 g/100 mL acetone).

Heichle *et al.* relates to polyvinyl chloride molding compositions comprised of 80-98 % (by weight) of polyvinyl chloride, 2-20 % of an impact modifying resin, and 2-30 % of calcium carbonate (claim 1). The reference does not disclose the use of graft copolymers presently claimed as impact modifying resins, and absent any teaching or suggestion to modify the impact modifying resin of the prior art, the skilled artisan would not have found it obvious to arrive at the subject matter of the present claims.

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Aoyama *et al.* teaches a vinyl chloride resin composition comprising 50-97 pw of vinyl chloride and 3-50 pw of a graft copolymer which is prepared by grafting 15-50 pw of a monomer component onto 50-85 pw of a rubber-like polymer. A 0.1 g/100 mL of an acetone solution of the graft copolymer has a specific viscosity of at least 0.6. Applicants have shown that the reduced viscosity of this material lies outside the claimed range of 1-5. Therefore, the graft copolymer of the present claims is not taught in Aoyama *et al.* The skilled artisan would not have found it obvious to modify the physical property of the polymer to arrive at the present invention because such a process is not taught or contemplated in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-1104.

ral

January 22, 2004



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700